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MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

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KASSA, HILINA S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/627,348	MARTI, CARLOS GONZALEZ	
	Examiner	Art Unit	
	HILINA S. KASSA	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 06/23/2010 have been fully considered but they are not persuasive.

On page 13 Applicant argues that Marshall which states “a computer program embodied on a computer readable medium for embedding security features within bar code. However, these lines doe not state that the computer program is embedded in a document they only state that the security codes are embedded in a bar code”

With respect to Applicant’s argument a computer program embodied on a computer readable medium for embedding security features within bar code. However, these lines doe not state that the computer program is embedded in a document they only state that the security codes are embedded in a bar code”, Examiner respectfully requests explanation of the "embedded program” as stated in the claimed subject matter.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 9, 17, 26-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "an embedded program of instructions at least partly based on user defined input information embedded in the electronic document data, linked to the user data input field, the embedded program being distributed in the copies of the electronic document data, the embedded program of instructions comprising: instructions to cause a processor to receive the user defined string of characters from the user data input field, instructions to control processing by the processor of the user defined string, instructions to derive from the characters in the user defined string, the instructions of the embedded program using the derived codewords to generate commands to print geometrical elements of a bar code, the geometrical elements representing each codeword as a respective configuration of printed geometrical elements and their background in a respective area of the bar code." It is not clear (1) if the embedded program is the barcode itself that is which gets distributed in the copies of the electronic document data? (2) or if the embedded program is a control program that controls processing to derive instructions to generate commands to print geometrical elements of a barcode? Clarification is respectfully requested. Same clarification is request for independent claims 9, 17, 26-27.

4. Claim 2-6 and 8 recite the limitation "the embedded instruction". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1, 9, 17, 26-27 are also rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1,9, 17, 26-27 covers both statutory and non- statutory embodiments (under the broadest reasonable interpretation of the claim when read in light of the specification and in view of one skilled in the art) and embraces subject matter that is not eligible for patent protection and therefore is directed to non- statutory subject matter. Specifically, " paragraph [0068] Furthermore, although an embodiment of the invention has been described using network 12 between document server 10 and document processor 14 to transport the electronic document data as an internet message signal, it will be clear that other means of transport may be used, for example by providing the electronic document data on a disk, such as a floppy disk or an optical disk such as a CDROM.., and as a result, the claim is drawn to such a recording medium that covers both transitory and non-transitory embodiments. Thus, the claims are not eligible subject matter. It is recommended to amend and narrow the claims to cover only statutory embodiments to

avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (US 2004/0065739 A1) and Wu et al. (US 2004/0128513 A1), and further in view of Marshall (US Patent Number 7,025,269 B2).

(1) regarding claim 1:

Xu et al. discloses a method and processor for obtaining printed instances of a document comprising:

Including a definition of a user data input field in the electronic document data (**paragraph 23, lines 1-2, paragraph 30, lines 1-8**), for receiving a user defined string of characters entered in said field (**page 3, paragraph 29 "key cryptography" which is considered as a field users could enter data to have it encrypted, page 2, paragraph 18 "overwrite individual data elements"**);

Xu et al. discloses all of the subject mater as described above except for the method of distributing copies of electronic document data to a document processors and the electronic document data containing instructions for printing each instance from a respective one of the document processors.

However, Wu et al. teaches method of distributing copies of electronic document data to a document processors and the electronic document data containing instructions for printing each instance from a respective one of the document processors (**paragraph 22, lines 7-8, paragraph 11, lines 1-3 teaches that electronic document could be sent out (distributed) by a document processor via the Internet to be modified and printed. And in paragraph 25, lines 1-7 not that In order to have an electronic document printed, the printer driver is invoked. Data contained in the document are first converted to printer command that is retrieved from the printer control firmware**).

One skilled in the art would have clearly recognized an electronic document or computer file that needs to be distributed or passed before it gets printed or processed by a document processor. Another method was related to the secured printing of the electronic document and tracking of the distribution path of the document after printing (paragraph 7, lines 5-8). Having said that, the method and processes used by Xu et al. increases the use for distributing of an electronic document to encode any information as a barcode code and to have it printed. Thus, the electronic form could be an on line e-application (paragraph 30, lines 4-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the barcode code

when loading an electronic form as taught by Wu et al. and having it to print the decoded elements of a barcode that is stated in entered as described in the method of Xu et al. to provide more efficiency when printing a decoded barcode.

Xu et al. and Wu et al. disclose all of the subject matter as described as above except for specifically teaching including an embedded program of instructions *embedded* in the electronic document data, linked to the user data input filed, the embedded program being distributed in the copies of the electronic document, the embedded program of instructions comprising: instructions to cause a processor to receive the user defined string of characters from the user data input field, Instructions to control processing by the processor of the user defined string, instructions to derive codewords from the characters in the user defined string, the instructions of the embedded program using the derived codewords to generate commands to print geometrical elements of a bar code, the geometrical elements representing each codeword as a respective configuration of printed geometrical elements and their background in a respective area of the bar code.

However, Marshall discloses including an embedded program of instructions *embedded* in the electronic document data (**column 2, lines 11-13; note that a program embedding a security features within barcodes is disclosed; column 5, lines 6-12; note that user has inputs/encodes instruction as desired with in the barcode**), linked to the user data input filed, the embedded program being distributed in the copies of the electronic document, the embedded program of instructions comprising: instructions to cause a processor to receive the user defined string of

characters from the user data input field, Instructions to control processing by the processor of the user defined string, instructions to derive codewords from the characters in the user defined string (**column 2, lines 11-17; note that the embedded program generates source code segments configured to receive a string of alphanumeric data and generate printable data**), the instructions of the embedded program using the derived codewords to generate commands to print geometrical elements of a bar code (**column 4, lines 49-52; note that per receiving the string of alphanumeric data, numerous patterns, sizes and shapes for embedded features can be programmed as described**), the geometrical elements representing each codeword as a respective configuration of printed geometrical elements and their background in a respective area of the bar code (**column 4, lines 52-55; note that the various patterns of barcodes including the source code or the embedded feature can be printed in the respective area of the barcode**).

Xu et al. and Wu et al. and Marshall are combinable because they are from the same field of endeavor i.e. printing of a barcode. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to including an embedded program of instructions *embedded* in the electronic document data, linked to the user data input filed, the embedded program being distributed in the copies of the electronic document, the embedded program of instructions comprising: instructions to cause a processor to receive the user defined string of characters from the user data input field, Instructions to control processing by the processor of the user defined string, instructions to derive codewords from the characters in the user defined string, the

instructions of the embedded program using the derived codewords to generate commands to print geometrical elements of a bar code, the geometrical elements representing each codeword as a respective configuration of printed geometrical elements and their background in a respective area of the bar code. The suggestion/motivation for doing so would have been in order to utilize a reliable and secure data embedded in a barcode (column 1, lines 44-54). Therefore, it would have been obvious to combine Xu et al., Wu et al. with Marshall to obtain the invention as specified in claim 1.

(2) regarding claim 2:

Xu et al. further discloses, wherein the embedded *instructions* (**4 figure 1, paragraph 25, lines 10-19**) is arranged to make at least one of the configurations dependent on a further factor other than the codeword represented by the configuration that will be decoded upon decoding the barcode (**7 figure 1, paragraph 24, lines 5-11, paragraph 25, lines 10-21; note that the barcode, hereafter referred to as an enhanced visually significant barcode (EVSBC), can be encoded with a black and white graphic embedded into a gray/white background (using a gray color for bit 1 and white for bit 0, for example**).

(3) regarding claim 3:

Xu et al. further discloses, wherein the embedded *instructions* makes the configurations dependent on the specific area in which the codeword is represented, so that mutually different configurations (**2, 3 figure 1, paragraph 21, lines 1-9**) will result

from representing a specific codeword dependent on whether the specific codeword is represented in one region or another (**paragraph 24, lines 5-11, paragraph 25, lines 10-21; note that the encoding process may also add synchronization marks (e.g., the markers 5 shown in FIG. 1) to the embedded graphic. The synchronization marks are then used in the decoding process**).

(4) regarding claim 4:

Xu et al. further discloses, wherein the embedded *instructions* is arranged to control printing of the barcode as a two dimensional barcode (**paragraph 6, lines 2-7 "placed on an item" – similar to printing**), at least part of the areas having mutually different shapes (**paragraph 8, lines 3-9**) the embedded program adapting the commands to print the elements of the configuration that is used to represent a codeword according to the shape of the area in which the codeword is represented (**35 figure 2, paragraph 34, lines 1-7; note that the encoder encodes the identified features, and other information, to generate the EVSBC. The EVSBC is then provided to a merge module that affixes the EVSBC to the transaction document. The EVSBC can then be provided with the transaction document as an electronic file, or may be sent to a printer**).

(5) regarding claim 5:

Xu et al. further discloses, wherein the embedded *instructions* is arranged to include additional information in the areas, the additional information being independent

of the codewords represented in the areas, (**could be a signature in an electronic form, paragraph 33, lines 16-21, Xu explains that the barcode could be decoded with an additional information independent of the initial information that had been stated**) the additional information being included by adding geometrical elements, removing geometrical elements an/or modifying visual properties of part of the geometrical elements that represent at least one of the codewords (**paragraph 33, lines 21-32), not affecting a decoded result when the barcode is decoded after scanning (42 figure 2, paragraph 35, lines 3-11, paragraph 36, lines 1-5**).

(6) regarding claim 6:

Xu et al. further discloses, wherein the embedded *instructions* is arranged to print additional geometrical elements that extend from within a region that is defined by all geometrical elements (**101 figure 3A, graphic figure could have geometrical elements, paragraph 37, lines 6-8**) that will be used to decode the barcode in the printed document, to outside said region among further printed items of the documents, so that the additional geometrical elements do not affect a decoded result when the barcode is scanned and decoded (**paragraph 37, lines 1-12; note that a two dimensional barcode (e.g., the EVSBC) 100 with an overlaid graphic. Data comprising the EVSBC may be contained in a database. A barcode reader and decoder is used to scan and decode information contained within the barcode and the graphic. In FIG. 3A, the graphic, which, for example, may be a signature, is imposed over the barcode**).

(7) regarding claim 7:

Xu et al. further discloses, wherein the geometrical elements each have a property that does not affect the decoded data (**paragraph 27, lines 1-5**) the embedded *instructions* being arranged to set said property in different ones of geometrical elements in at least one area that represents a codeword differently during printing (**paragraph 54, lines 1-3, paragraph 55, line 3-4; note that the encoder overlays the graphic on to the barcode. In block, the encoder places the barcode stamp (the EVSBC 100) on the document of interest**).

(8) regarding claim 8:

Xu et al. further discloses, wherein the embedded *instructions* is arranged to select a color and/or grey level density of different geometrical elements differently (**paragraph 25, lines 1-10, paragraph 27, lines 1-7**), as a predetermine function of position in an area where the barcode is printed (**paragraph 51, lines 2-10 " there is no specific limitation for the printing the barcode; however the barcode could be printable"**).

(10) regarding claim 26:

Marshall discloses providing software building blocks for building a program of instructions *embedded in the electronic document,* (**column 2, lines 11-13; note that a program embedding a security features within barcodes is disclosed, column 5,**

lines 6-12; note that user has inputs/encodes instruction as desired with in the barcode), *the embedded* instructions being configured to cause a processor to receive and process the string of characters from said field to transform the characters into commands to print geometrical elements of a barcode, so that the generated barcode is decodable according to a predetermined standard (**column 2, lines 11-17; note that the embedded program generates source code segments configured to receive a string of alphanumeric data and generate printable data**), assembling the building blocks into the electronic document during authoring of the document, while adapting the embedded program of *instructions* to make a visual aspect of the barcodes generated under control of the embedded *instructions* specific to the document and/or the field, without affecting a result of decoding the barcode (**column 1, lines 58-61; note that authentication feature of a barcode is provided. Also, in column 4, lines 52-55; note that the various patterns of barcodes including the source code or the embedded feature can be printed in the respective area of the barcode**).

Marshall disclose all of the subject matter as described as above except for specifically teaching a method of authoring an electronic document, including a definition of a field for entering a string of characters in the document.

However, Xu et al. disclosed a method of authoring an electronic document, including a definition of a field for entering a string of characters in the document (**3A figure 1, paragraph 30, lines 1-8, claim 2, line 3**).

Marshall and Xu et al. are combinable because they are from the same field of endeavor i.e. printing of a barcode. At the time of the invention, it would have been

obvious to a person of ordinary skilled in the art to have a method of authoring an electronic document, including a definition of a field for entering a string of characters in the document. The suggestion/motivation for doing so would have been in order to enhance visually significant barcode with an item (paragraph [0007], lines 1-3). Therefore, it would have been obvious to combine Xu et al. with Marshall to obtain the invention as specified in claim 26.

Xu et al. and Marshall disclosed all of the subject mater as described above except for distributing copies of the electronic document with the embedded program of instructions for receiving and processing the string of characters under control of the embedded program after distribution.

However, Wu et al. distributing copies of the electronic document with the embedded program of instructions for receiving and processing the string of characters under control of the embedded program after distribution (**paragraph 22, lines 7-8, paragraph 11, lines 1-3 teaches that electronic document could be sent out (distributed) by a document processor via the Internet to be modified and printed. And in paragraph 25, lines 1-7 not that In order to have an electronic document printed, the printer driver is invoked. Data contained in the document are first converted to printer command that is retrieved from the printer control firmware**).

One skilled in the art would have clearly recognized an electronic document or computer file that needs to be distributed or passed before it gets printed or processed by a document processor. Another method was related to the secured printing of the electronic document and tracking of the distribution path of the document after printing

(paragraph 7, lines 5-8). Having said that, the method and processes used by Xu et al. increases the use for distributing of an electronic document to encode any information as a barcode code and to have it printed. Thus, the electronic form could be an on line e-application (paragraph 30, lines 4-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the barcode code when loading an electronic form as taught by Wu et al. and having it to print the decoded elements of a barcode that is stated in entered as described in the method of Xu et al. to provide more efficiency when printing a decoded barcode.

9. Claims 17-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (US 2004/0065739 A1) in view of Marshall (US Patent Number 7,025,269 B2).

(1) regarding claim 17:

Xu et al. further discloses, an electronic form stored on a computer that contains a definition of a user data entry field (**paragraph 23, lines 1-2, paragraph 30, lines 1-8**).

Xu et al. disclose all of the subject matter as described as above except for specifically teaching receiving a string of input characters from a user and an embedded program of instructions *embedded* in the electronic form and linked to the user data input filed, *wherein instructions* of the embedded program are configured to cause a processor to derive a series of codewords from the characters in the string and

generate commands to print geometrical elements of a barcode, dependent on the codewords, representing, each codeword as a configuration of printed geometrical elements and their background in a respective area of the barcode.

However, Marshall discloses receiving a string of input characters from a user and an embedded program of instructions *embedded* in the electronic form (**column 2, lines 11-13; note that a program embedding a security features within barcodes is disclosed, column 5, lines 6-12; note that user has inputs/encodes instruction as desired with in the barcode**), linked to the user data input filed, *wherein instructions* of the embedded program are configured to cause a processor to derive a series of codewords from the characters in the string and generate commands to print geometrical elements of a barcode (**column 2, lines 11-17; note that the embedded program generates source code segments configured to receive a string of alphanumeric data and generate printable data**), dependent on the codewords, representing, each codeword as a configuration of printed geometrical elements and their background in a respective area of the barcode (**column 4, lines 49-52; note that per receiving the string of alphanumeric data, numerous patterns, sizes and shapes for embedded features can be programmed as described. Also, in lines 52-55; note that the various patterns of barcodes including the source code or the embedded feature can be printed in the respective area of the barcode**).

Xu et al. and Marshall are combinable because they are from the same field of endeavor i.e. printing of a barcode. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to receive a string of input characters

from a user and an embedded program of instructions *embedded* in the electronic form and linked to the user data input filed, *wherein instructions* of the embedded program are configured to cause a processor to derive a series of codewords from the characters in the string and generate commands to print geometrical elements of a barcode, dependent on the codewords, representing, each codeword as a configuration of printed geometrical elements and their background in a respective area of the barcode. The suggestion/motivation for doing so would have been in order to utilize a reliable and secure data embedded in a barcode (column 1, lines 44-54). Therefore, it would have been obvious to combine Xu et al. with Marshall to obtain the invention as specified in claim 17.

(2) regarding claim 18:

Xu et al. further discloses, an electronic form according to claim 17, wherein the embedded (**4 figure 1, paragraph 25, lines 10-19**) program is arranged to make at least one of the configurations dependent on a further factor other than the codeword represented by the configuration that will be decoded upon decoding the barcode (**7 figure 1, paragraph 24, lines 5-11**).

(3) regarding claim 19:

Xu et al. further discloses, an electronic form according to claim 17, wherein the embedded *instructions* makes the configurations dependent on the specific area in which the codeword is represented, so that mutually different configurations (**2, 3 figure**

1, paragraph 21, lines 1-9) will result from representing a specific codeword dependent on whether the specific codeword is represented in one region or another (**paragraph 24, lines 5-11, paragraph 25, lines 10-21**).

(4) regarding claim 20:

Xu et al. further discloses, an electronic form as claimed in claim 19, wherein the embedded *instructions* is arranged to control printing of the barcode as a two dimensional barcode (**paragraph 6, lines 2-7 "placed on an item" – similar to printing**), at least part of the areas having mutually different shapes (**paragraph 8, lines 3-9**), the embedded *instructions* adapting the commands to print the elements of the configuration that is used to represent a codeword according to the shape of the area in which the codeword is represented (**35 figure 2, paragraph 34, lines 1-7**).

(5) regarding claim 21:

Xu et al. further discloses, an electronic form as claimed in claim 19, wherein the embedded *instructions* are arranged to include additional information in the areas (**could be a signature in an electronic form, paragraph 33, lines 16-21, Xu explains that the barcode could be decoded with an additional information independent of the initial information that had been stated**), the additional information being independent of the codewords that are represented in the areas, the additional information being included by adding geometrical elements, removing geometrical elements and/or modifying visual properties of part of the geometrical elements that

represent at least one of the codewords (**paragraph 33, lines 21-32**), dependent on the area in which the codeword is represented in a way that does not affect a decoded result when the barcode is scanned and decoded (**paragraph 37, lines 1-12**).

(6) regarding claim 22:

Xu et al. further discloses, an electronic form as claimed in claim 21, wherein the embedded *instructions* are arranged to print additional geometrical elements that extend from within a region that is defined by all geometrical elements (**101 figure 3A, graphic figure could have geometrical elements, paragraph 37, lines 6-8**) that will be used to decode the barcode in the printed document, to outside said region among further printed items of the documents, so that the additional geometrical elements do not affect a decoded result when the barcode is scanned and decoded (**paragraph 37, lines 1-12**).

(7) regarding claim 23:

Xu et al. further discloses, an electronic form as claimed in claim 21, wherein the geometrical elements each have a property that does not affect the decoded data (**paragraph 27, lines 1-5**) the embedded *instructions* being arranged to set said property in different ones of geometrical elements in at least one area that represents a codeword differently during printing (**paragraph 54, lines 1-3, paragraph 55, line 3-4**).

(8) regarding claim 24:

Xu et al. further discloses, an electronic form as claimed in claim 23, wherein the embedded *instructions* are arranged to select a color and/or grey level density of different geometrical elements differently (**paragraph 25, lines 1-10, paragraph 27, lines 1-7**), as a predetermined function of position in an area where the barcode is printed (**paragraph 51, lines 2-10 "there is no specific limitation for the printing the barcode; however the barcode could be printable**").

(9) regarding claim 25:

Xu et al. further discloses, a machine readable medium, comprising an electronic from stored on a computer (**paragraph 33, lines 5-13**) according to claim 17.

(10) regarding claim 27:

Marshall discloses an embedded program of instructions embedded in the electronic document and linked to the field, wherein the embedded program of instructions is configured to cause a processor to receive (**column 2, lines 11-13; note that a program embedding a security features within barcodes is disclosed, column 5, lines 6-12; note that user has inputs/encodes instruction as desired with in the barcode**), process the string of characters and to generate commands to print geometrical elements of a bar code, the machine comprising software building blocks for building the embedded program so that the generated bar code is decodable according to a predetermined standard (**column 2, lines 11-17; note that the embedded program generates source code segments configured to receive a**

string of alphanumeric data and generate printable data), and an editor for assembling the building blocks when the document is authored, the editor proving for adaptation of (**column 1, lines 58-61; note that authentication feature of a barcode is provided**), the embedded instruction to make a visual aspect of the barcodes generated under control of the embedded instructions specific to the document and/or the field, without affecting a result of decoding the barcode (**column 4, lines 52-55; note that the various patterns of barcodes including the source code or the embedded feature can be printed in the respective area of the barcode**).

Marshall disclose all of the subject matter as described as above except for specifically teaching a document authoring machine, for generating an electronic document that includes a field for entering a string of characters.

However, Xu et al. disclosed a document authoring machine, for generating an electronic document that includes a field for entering a string of characters (**3A figure 1, paragraph 30, lines 1-8, claim 2, line 3**).

Marshall and Xu et al. are combinable because they are from the same field of endeavor i.e. printing of a barcode. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to have a document authoring machine, for generating an electronic document that includes a field for entering a string of characters. The suggestion/motivation for doing so would have been in order to enhance visually significant barcode with an item (paragraph [0007], lines 1-3). Therefore, it would have been obvious to combine Xu et al. with Marshall to obtain the invention as specified in claim 27.

10. Claims 9-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (US 2004/0065739 A1) and Marshall (US Patent Number 7,025,269 B2) further in view of Koakutsu et al. (US Patent Number 6,906,812 B2).

(1) regarding claim 9:

Xu et al. discloses a method for processing an electronic document processor comprising: .

a user data input device and a connection for a printer, the electronic document processor having a loaded electronic form that contains a definition of a user data entry field for receiving a string of input characters from a user (**paragraph 33, lines 5-13**),

Xu et al. discloses all of the subject mater as described above except for the user data input device and a connection for a printer.

However, Koakutsu et al. shows the connection between user data input device (90 figure 1, column 6, lines 51-52, column 7, lines 44-48) and a printer (1 figure 1, column 6, lines 51-52, column 7, lines 44-48). A barcode or similar symbol can be printed accurately with in a specified printing area by a printer. For printing such symbols, the printer has a symbol image generator for converting display data to a symbol and has hardware or software for reporting the size of the converted symbol to a host device. The host sends specific commands and text data for representation in the printed symbol to the printer for printing (abstract).

Once skilled in the art would have clearly recognized that a user data input device and connectivity to a printer are the very essential elements to have an electronic document data printed. The host device or an application running on the host device only needs to send the information to be displayed to the printer (column 3, lines 13-15). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to have a host device or data input device and connectivity to a printer to as taught by Koakutsu et al. in the method of Xu et al. in order to efficiently print and process any document.

Xu et al. and Koakutsu et al. disclose all of the subject matter as described as above except for specifically teaching the processor being arranged to extract and execute an embedded program of instructions that the processor receives embedded in the document, the embedded program being linked to the user data input field, instructions of the embedded program being configured to cause the processor or device a series of codewords from the string and to generate to print geometrical elements of a bar code dependent on the derived codewords, the instructions causing the processor to represent as a configuration of printed geometrical elements and their background in a respective area of the bar code.

However, Marshall discloses the processor being arranged to extract and execute an embedded program of instructions that the processor receives embedded in the document (**column 2, lines 11-13; note that a program embedding a security features within barcodes is disclosed, column 5, lines 6-12; note that user has inputs/encodes instruction as desired with in the barcode**), the embedded program

being linked to the user data input field, instructions of the embedded program being configured to cause the processor or device a series of codewords from the string and to generate to print geometrical elements of a bar code dependent on the derived codewords (**column 2, lines 11-17; note that the embedded program generates source code segments configured to receive a string of alphanumeric data and generate printable data**), the instructions causing the processor to represent as a configuration of printed geometrical elements and their background in a respective area of the bar code (**column 4, lines 49-52; note that per receiving the string of alphanumeric data, numerous patterns, sizes and shapes for embedded features can be programmed as described and lines 52-55; note that the various patterns of barcodes including the source code or the embedded feature can be printed in the respective area of the barcode**).

Xu et al., Koakutsu et al. and Marshall are combinable because they are from the same field of endeavor i.e. printing of a barcode. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art for the processor being arranged to extract and execute an embedded program of instructions that the processor receives embedded in the document, the embedded program being linked to the user data input field, instructions of the embedded program being configured to cause the processor or device a series of codewords from the string and to generate to print geometrical elements of a bar code dependent on the derived codewords, the instructions causing the processor to represent as a configuration of printed geometrical elements and their background in a respective area of the bar code. The

suggestion/motivation for doing so would have been in order to utilize a reliable and secure data embedded in a barcode (column 1, lines 44-54). Therefore, it would have been obvious to combine Xu et al. and Koakutsu et al. with Marshall to obtain the invention as specified in claim 9.

(2) regarding claim 10:

Xu et al. further discloses, an electronic document processor as claimed in claim 9, wherein the embedded *instructions* (**4 figure 1, paragraph 25, lines 10-19**) is arranged to make at least one of the configurations dependent on a further factor other than the codeword represented by the configuration that will be decoded upon decoding the barcode (**7 figure 1, paragraph 24, lines 5-11, paragraph 25, lines 10-21**).

(3) regarding claim 11:

Xu et al. further discloses, an electronic document processor as claimed in claim 9, wherein the embedded *instructions* makes the configurations dependent on the specific area in which the codeword is represented, so that mutually different configurations (**2, 3 figure 1, paragraph 21, lines 1-9**) will result to represent a specific codeword dependent on whether the specific codeword is represented in one region or another (**paragraph 24, lines 5-11, paragraph 25, lines 10-21**).

(4) regarding claim 12:

Xu et al. further discloses, an electronic document processor as claimed in claim 11, wherein the embedded *instructions* is arranged to control printing of the barcode as a two dimensional barcode (**paragraph 6, lines 2-7 "placed on an item" – similar to printing**), at least part of the areas having mutually different shapes, the embedded program adapting the commands to print the elements of the configuration that is uses to represent a codeword according to the shape of the area in which the codeword is represented (**35 figure 2, paragraph 34, lines 1-7**).

(5) regarding claim 13:

Xu et al. further discloses, an electronic document processor as claimed in claim 11, wherein the embedded *instructions* is arranged to include additional information in the areas (**could be a signature in an electronic form, paragraph 33, lines 16-21, Xu explains that the barcode could be decoded with an additional information independent of the initial information that had been stated**), the additional information being independent of the codeword represented in the areas, the additional information being included by adding geometrical elements, removing geometrical elements and/or modifying visual propertied of part of the geometrical elements that represent at least one of the codewords (**paragraph 33, lines 21-32**), dependent on the area in which the codeword is represented in a way that does not affect a decoded result when the barcode is scanned and decoded (**paragraph 37, lines 1-12**).

(6) regarding claim 14:

Xu et al. further discloses, an electronic document processor as claimed in claim 13, wherein the embedded *instructions* are arranged to print additional geometrical elements that extend from within a region that is defined by all geometrical elements (**101 figure 3A, graphic figure could have geometrical elements, paragraph 37, lines 6-8**) that will be used to decode the barcode in the printed document, to outside said region among further printed items of the document, so that the additional geometrical elements do not affect a decoded result when the barcode is scanned and decoded (**paragraph 37, lines 1-12**).

(7) regarding claim 15:

Xu et al. further discloses, an electronic document processor as claimed in claim 13, wherein the geometrical elements each have a property that does not affect the decoded data (**paragraph 27, lines 1-5**), the embedded *instructions* being arranged to set said property in different ones of geometrical elements in at least one area that represents a codeword differently during printing (**paragraph 54, lines 1-3, paragraph 55, line 3-4**).

(8) regarding claim 16:

Xu et al. further discloses, an electronic document processor as claimed in claim 15, wherein the embedded *instructions* are arranged to select a color and/or grey level density of different geometrical elements differently (**paragraph 25, lines 1-10, paragraph 27, lines 1-7**), as a predetermined function of position in an area where the

barcode is printed (**paragraph 51, lines 2-10 "there is no specific limitation for the printing the barcode; however the barcode could be printable"**).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zhao et al. (USPN 7,555,650) disclosed Techniques for reducing the computational cost of embedding information in digital representations.

12. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore could be reached at (571) 272- 7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hilina S Kassa/

Examiner, Art Unit 2625

August 30, 2010

/Twyler L. Haskins/

Supervisory Patent Examiner, Art Unit 2625